

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A fan assembly comprising:

a fan including a fan housing with an inlet and an outlet; and

a switched reluctance fan motor mounted in said fan housing that includes:

_____ a shaft that is connected to said fan, ~~wherein said switched reluctance fan motor includes;~~

_____ a stator including a plurality of circumferentially-spaced stator segment assemblies ~~that include~~ each including a stator segment core defining a single stator pole and winding wire wound around said stator segment core;

_____ a rotor that is connected to said shaft and that defines a plurality of rotor poles, wherein said rotor tends to rotate relative to said stator to a rotational position that maximizes the inductance of an energized winding; ~~and~~

_____ a drive circuit that energizes said winding wire around said stator segment assemblies based on said rotational position of said rotor using sensorless techniques.

2. (Currently Amended) The fan assembly of claim 1 ~~further comprising a fan housing, wherein said fan housing includes an inlet and an outlet, wherein said switched~~

~~reluctance fan motor is mounted in said fan housing and wherein said fan is an axial fan.~~

3. (Currently Amended) The fan assembly of claim 1 ~~further comprising a fan housing, wherein said fan housing includes an inlet and an outlet, wherein said switched reluctance fan motor is mounted in said inlet and wherein said fan is a squirrel cage fan.~~

4. (Original) The fan assembly of claim 1 wherein said stator segment core includes stator plates with a radially outer rim section and a tooth section that extends radially inwardly from a center portion of said radially outer rim section.

5. (Original) The fan assembly of claim 4 further comprising:
an insulation layer located between said winding wire and said stator segment core.

6. (Original) The fan assembly of claim 4 further comprising:
projections extending from opposite sides of a radially inner end of said tooth section.

7. (Original) The fan assembly of claim 6 further comprising:

first and second end caps connected to opposite axial ends of said stator segment core; and

first and second end cap retainer sections that extend along said projections and that connect said first and second end caps,

wherein said first and second end caps and said first and second end cap retainer sections reduce movement of said winding wire during use.

8. (Original) The fan assembly of claim 4 wherein said stator plates of said stator segment core include radial and lateral slits and first and second central portions that are deformed using a punch to hold said stack of stator plates together.

9. (Currently Amended) The fan assembly of claim 1-6 wherein said ~~drive circuit senses rotor position using sensorless techniques~~ projections have a width W2 that is greater than a width of said tooth section W1.

Claims 10-25 (Withdrawn).

26. (New) The fan assembly of claim 1 further comprising an end cap assembly including first and second end caps connected to opposite axial ends of said stator segment core and a first end cap retainer section that extends along said projections and that connects said first and second end caps, wherein said winding wire is wound around said first and second end caps and said stator core, and wherein said

end cap assembly is not located between radial side surfaces of said tooth section and said winding wire.

27. (New) The fan assembly of claim 26 wherein said end cap assembly further includes a second end cap retainer section that extends along said projections and that connects said first and second end caps.